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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,904	02/27/2004	Yuqun Chen	MS1-1969US	9299

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EXAMINER	
HAUPT, KRISTY A	

ART UNIT	PAPER NUMBER
2876	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/789,904	CHEN ET AL.	
	Examiner	Art Unit	
	KRISTY A. HAUPT	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13,15-19,21-43 and 45-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,11-13,15-19,21-27,32-43 and 45-54* is/are rejected.

7)☒ Claim(s) *7-10 and 28-31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to Applicant's Amendments and Remarks filed 08 May 2008. Claims 1-13, 15-19, 21-43 and 45-52 are pending with claims 1, 19 and 41 in independent form. Claims 14, 20 and 44 are cancelled. Claims 52-54 are newly added.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.,* 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-6, 11-13, 15-19, 21-27, 32-43 and 45-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaish et al. US 5,974,150 in view of Han et al. US 6,193,156 B1.

Kaish teaches:

With respect to claim 1:

- Encoding a plurality of features of a label with a private key to provide a medium certificate (Column 22, Lines 27-46), wherein the plurality of features comprise coordinates of a plurality of fiber strands present on the label (Abstract and Column 22, Lines 38-64)
- Decoding the medium certificate with a public key (Column 23, Lines 4-19)
- Verifying the decoded medium certificate against the plurality of label features to determine whether the label is genuine (Column 23, Lines 15-18)

With respect to claim 2 and incorporating all limitations of claim 1:

- Wherein the plurality of label features comprise coordinates of a plurality of optical fiber strands present on the label (Abstract and Column 22, Lines 38-64)

With respect to claim 3 and incorporating all limitations of claim 1:

- Wherein the medium certificate is provided with the label (Abstract, Column 22, Lines 27-28 and Figure 1)

With respect to claim 4 and incorporating all limitations of claim 1:

- Wherein the medium certificate is provided with the label and the medium certificate is represented as one or more items selected from a plurality comprising a bar code and an RFID (Figure 1 and Column 22, Lines 27-46)

With respect to claim 5 and incorporating all limitations of claim 1:

- Wherein the medium certificate is provided remotely (Column 26, Lines 15-27)

With respect to claim 6 and incorporating all limitations of claim 1:

- Wherein the medium certificate is provided remotely through data stored in a database (Column 26, Lines 15-27)

With respect to claim 11 and incorporating all limitations of claim 1:

- Wherein data regarding the plurality of label features is compressed prior to the encoding (Column 28, Lines 7-14)

With respect to claim 12 and incorporating all limitations of claim 1:

- Wherein the plurality of label features comprise one or more features selected from a plurality of features, the plurality of features comprising optical fiber length, optical fiber curvature, optical fiber relative light intensity, optical fiber florescence, optical fiber color and optical fiber thickness (Column 22, Lines 47-58)

With respect to claim 13 and incorporating all limitations of claim 1:

- Binding an application certificate to the medium certificate, wherein the application certificate is generated based at least in part on application data comprising a vendor-specific private key (Column 27, Lines 20-40)

With respect to claim 15 and incorporating all limitations of claim 1:

- Binding an application certificate to the medium certificate, wherein the application certificate is provided by using a private key (Column 27, Lines 20-40)

With respect to claim 16 and incorporating all limitations of claim 1:

- Binding an application certificate to the medium certificate and verifying that the application certificate corresponds to the medium certificate to determine if the label is genuine (Column 27, Lines 20-40)

With respect to claim 17 and incorporating all limitations of claim 16:

- Wherein the verification of the application certificate is performed by using a public key (Column 27, Lines 20-40)

With respect to claim 18 and incorporating all limitations of claim 1:

- One or more computer readable media storing computer executable instructions that, when executed, perform the method as recited in claim 1 (Figures 4A and 4B)

With respect to claim 19:

- Encoding a plurality of features of a label to provide a medium certificate (Column 22, Lines 27-46)
- Providing an identifying indicia corresponding to the medium certificate (Figure 1 and Column 22, Lines 27-46)
- Verifying the identifying indicia against the plurality of features of the label to determine whether the label is genuine (Column 23, Lines 15-18) wherein the plurality of label features comprise coordinates of a plurality of fiber strands present on the label Abstract and Column 22, Lines 38-64)

With respect to claim 21 and incorporating all limitations of claim 19:

- Wherein the medium certificate is provided by using a private key (Column 22, Lines 27-46)

With respect to claim 22 and incorporating all limitations of claim 19:

- Wherein the verifying is performed by using a public key (Column 23, Lines 4-19)

With respect to claim 23 and incorporating all limitations of claim 19:

- Wherein the identifying indicia is provided with the label (Figure 1 and Column 22, Lines 27-46)

With respect to claim 24 and incorporating all limitations of claim 19:

- Wherein the plurality of label features further comprise one or more features selected from a group comprising optical fiber length, optical fiber curvature, optical fiber relative light intensity, optical fiber florescence, optical fiber color and optical fiber thickness (Column 22, Lines 47-58)

With respect to claim 25 and incorporating all limitations of claim 19:

- Wherein the identifying indicia is provided with the label and the identifying indicia is one or more items selected from a group comprising a bar code and an RFID (Figure 1 and Column 22, Lines 27-46)

With respect to claim 26 and incorporating all limitations of claim 19:

- Wherein the identifying indicia is provided remotely (Column 26, Lines 15-27)

With respect to claim 27 and incorporating all limitations of claim 19:

- Wherein the identifying indicia is provided remotely through data stored in a database (Column 26, Lines 15-27)

With respect to claim 32 and incorporating all limitations of claim 19:

- Wherein data regarding the plurality of label features is compressed prior to the encoding (Column 28, Lines 7-14)

With respect to claim 33 and incorporating all limitations of claim 19:

- Binding an application certificate to the medium certificate (Column 27, Lines 20-40)

With respect to claim 34 and incorporating all limitations of claim 19:

- Binding an application certificate to the medium certificate, wherein the application certificate comprises application data (Column 27, Lines 20-40)

With respect to claim 35 and incorporating all limitations of claim 19:

- Binding an application certificate to the medium certificate, wherein the application certificate is provided by using a private key (Column 27, Lines 20-40)

With respect to claim 36 and incorporating all limitations of claim 19:

- Binding an application certificate to the medium certificate, wherein the application certificate is provided by a hash value of the medium certificate (Column 27, Lines 20-40 and Column 16, Lines 45-64)

With respect to claim 37 and incorporating all limitations of claim 19:

- Binding an application certificate to the medium certificate, wherein the application certificate is provided by appending a hash value of the medium certificate to application data to form extended application data (Column 27, Lines 20-40 and Column 16, Lines 45-64)

With respect to claim 38 and incorporating all limitations of claim 19:

- Binding an application certificate to the medium certificate and verifying that the application certificate corresponds to the medium certificate to determine if the label is genuine (Column 27, Lines 20-40)

With respect to claim 39 and incorporating all limitations of claim 38:

- Wherein the verification of the application certificate is performed by using a public key (Column 27, Lines 20-40)

With respect to claim 40 and incorporating all limitations of claim 19:

- One or more computer readable media storing computer executable instructions that, when executed, perform the method as recited in claim 19 (Figures 4A and 4B)

With respect to claim 41:

- A processor (Abstract)
- A system memory coupled to the processor (Figure 2, #23)
- A medium scanner operatively coupled to the processor to scan a plurality of features of a label (Figure 3, #44)
- A label encoder to encode the plurality of label features as a medium certificate (Figure 4A) wherein the plurality of label features comprise coordinates of a plurality of fiber strands present on the label Abstract and Column 22, Lines 38-64)
- A label printer to print the medium certificate on the label (Figure 2, #34)

With respect to claim 42 and incorporating all limitations of claim 41:

- Wherein data regarding the scanned plurality of label features is compressed prior to encoding (Column 28, Lines 7-14)

With respect to claim 43 and incorporating all limitations of claim 41:

- Wherein the label printer further prints an application certificate on the label (Column 16, Lines 31-35 and Column 27, Lines 20-40)

With respect to claim 45 and incorporating all limitations of claim 41:

- Wherein the plurality of label features further comprise one or more features selected from a group comprising optical fiber length, optical fiber curvature, optical fiber relative light intensity, optical fiber florescence, optical fiber color and optical fiber thickness (Column 22, Lines 47-58)

With respect to claim 46 and incorporating all limitations of claim 41:

- A label scanner to verify the medium certificate against the plurality of label features (Column 25, Lines 50-56 and Figure 3, #44)

With respect to claim 47 and incorporating all limitations of claim 41:

- An application label encoder to encode application data bound to the medium certificate as an application certificate (Column 27, Lines 20-40)

With respect to claim 48 and incorporating all limitations of claim 41:

- A label scanner to scan the medium certificate off of the label and a verification medium scanner to scan the plurality of label features wherein if the medium certificate is decoded using a public key and the decoded

medium certificate matches the scanned plurality of the label features by the verification medium scanner, the label is declared as genuine (Column 24, Line 63 – Column 25, Line 6)

With respect to claim 49 and incorporating all limitations of claim 48:

- Wherein the matching is determined based on a threshold value (Column 12, Lines 48-50)

With respect to claim 50 and incorporating all limitations of claim 41:

- A label scanner to scan the medium certificate off of the label and a verification medium scanner to scan the plurality of label features wherein if the medium certificate is decoded using a public key and the decoded medium certificate does not match the scanned plurality of the label features by the verification medium scanner, the label is declared as counterfeit (Column 24, Line 63 – Column 25, Line 6)

With respect to claim 51 and incorporating all limitations of claim 50:

- Wherein the matching is determined based on a threshold value (Column 12, Lines 48-50)

Kaish fails to teach:

With respect to claims 1, 19 and 41:

- The fiber strands are optical fiber strands

With respect to claim 2:

- Wherein the coordinates comprise coordinates of each end of the plurality of optical fiber strands present on the label

With respect to claim 52:

- Wherein the plurality of optical fiber strands present on the label comprise strands of at least lighting-grade optical fiber

However, Han teaches:

With respect to claims 1, 19 and 41:

- The fiber strands are optical fiber strands (Abstract, Figure 9A, Figure 10A, Figure 12)

With respect to claim 2:

- Wherein the coordinates comprise coordinates of each end of the plurality of optical fiber strands present on the label (Column 8, Lines 4-12 teaches detecting the end of the fiber bundles and the location where they have been burned)

With respect to claim 52:

- Wherein the plurality of optical fiber strands present on the label comprise strands of at least lighting-grade optical fiber (Abstract and Column 7, Lines 31-36 teaches used fiber optic light pipes)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Kaish to use optical fibers as opposed to dichroic fibers, as taught by Han, as the optical fibers only require an LED as a light source and a photosensor, such as a CCD, to detect the pattern, where both LED's and CCD's are commercially-available and inexpensive to produce, therefore the cost of the counterfeit determining system is greatly reduced and is easy to produce and use.

5. Claims 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaish et al. US 5,974,150 in view of Han et al. US 6,193,156 B1, as applied to claims 19 and 41 above, and further in view of Hecht US 2003/0006285 A1.

The teachings of Kaish and Han have been discussed above.

Kaish additionally teaches:

With respect to claim 53 and incorporating all limitations of claim 19:

- Scanning the label to determine identifying indicia which corresponds to the medium certificate (Column 25, Lines 50-67)

- Wherein providing an identifying indicia corresponding to the medium certificate comprises providing the identifying indicia which corresponds to the medium certificate (Abstract and Column 22, Lines 27-46)

Kaish as modified by Han fails to explicitly teach:

With respect to claim 53:

- The scanning comprising a method selected from a group consisting of: fixed partition scanning and sweep-line scanning

With respect to claim 54:

- Wherein the medium scanner facilitates scanning via a method selected from a group consisting of: fixed partition scanning and sweep-line scanning

However, Hecht teaches:

With respect to claim 53 and incorporating all limitations of claim 19:

- The scanning comprising a method selected from a group consisting of: fixed partition scanning and sweep-line scanning (See Title, Abstract and Column 1, Lines 11-14)

With respect to claim 54 and incorporating all limitations of claim 41:

- Wherein the medium scanner facilitates scanning via a method selected from a group consisting of: fixed partition scanning and sweep-line scanning (See Title, Abstract and Column 1, Lines 11-14)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Kaish as modified by Han to use a sweep-line scanner to scan the medium, as taught by Hecht, to quickly and efficiently scan objects of differing heights (Column 1, Lines 29-34) and perform low, medium or high density scanning placed at a variety of distances over a depth of field in excess of three feet (Column 2, Line 65 - Column 3, Line 4). The use of a sweep-line scanner also allows the flexibility of choosing pixels obtained within sweeps for close analysis of individual sections of an image segment for more efficient processing as well as compensation for object motion during a sweep by the system (Column 6, Lines 20-26).

Allowable Subject Matter

6. Claims 7-10 and 28-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest to one of ordinary skill in the art, in conjunction with all the other limitations of the claims:

With respect to claims 7 and 28 and all their respective dependencies:

- Where the verifying comprises obtaining at least two shots of the label, extracting data from the shots, determining a motion transformation function of the extracted data and forming a multi-dimensional map of the plurality of label features

The prior art of record fails to provide sufficient teaching or motivation to one of ordinary skill in the art to provide the additionally recited features of these claims in the combinations as claimed.

Response to Arguments

7. Applicant's arguments with respect to claims 1-6, 11-13, 15-19, 21-27, 32-43 and 45-52 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KRISTY A. HAUPT whose telephone number is (571)272-8545. The examiner can normally be reached on M-F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. A. H./
Examiner, Art Unit 2876

/Michael G Lee/

Supervisory Patent Examiner, Art Unit 2876